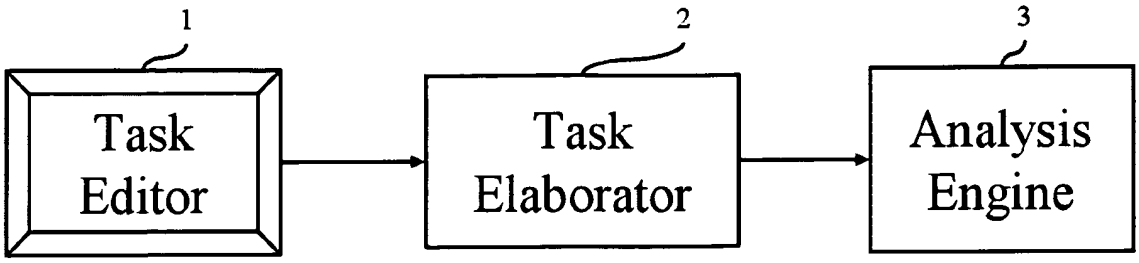

1
2
3
Task Editor
Task Elaborator
Analysis Engine

Fig. 1

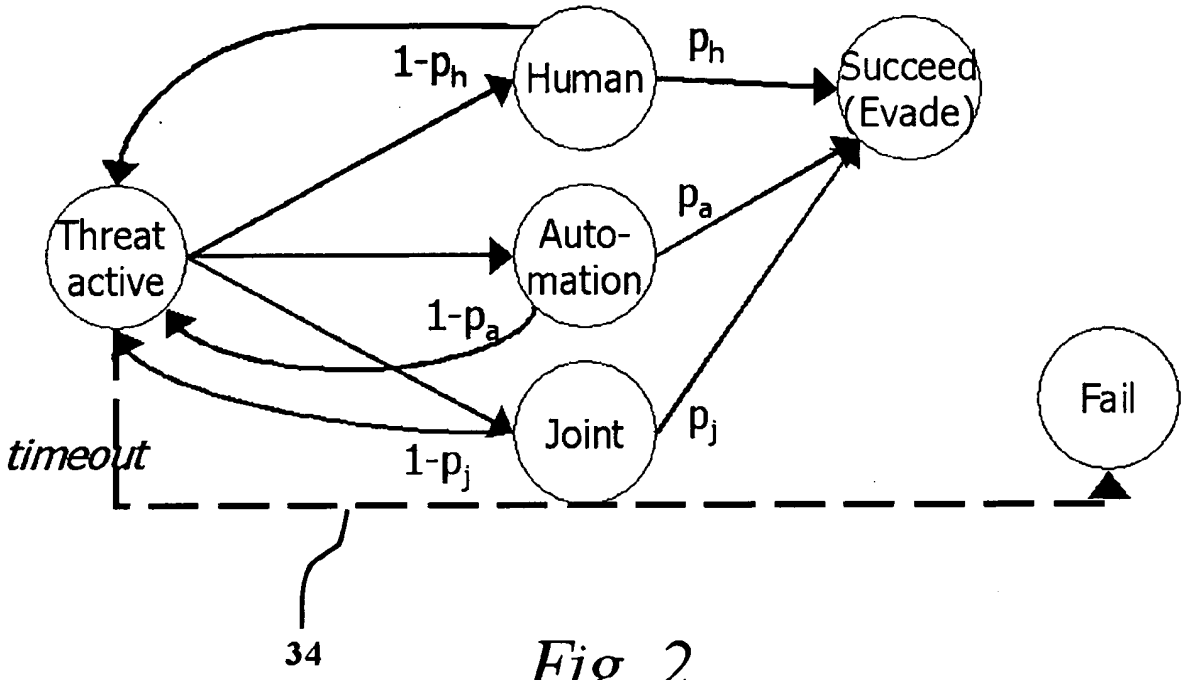

1-p_h
Human
p_h
Succeed (Evade)
Threat active
Auto-mation
p_a
1-p_a
Joint
p_j
Fail
timeout
1-p_j
34

Fig. 2

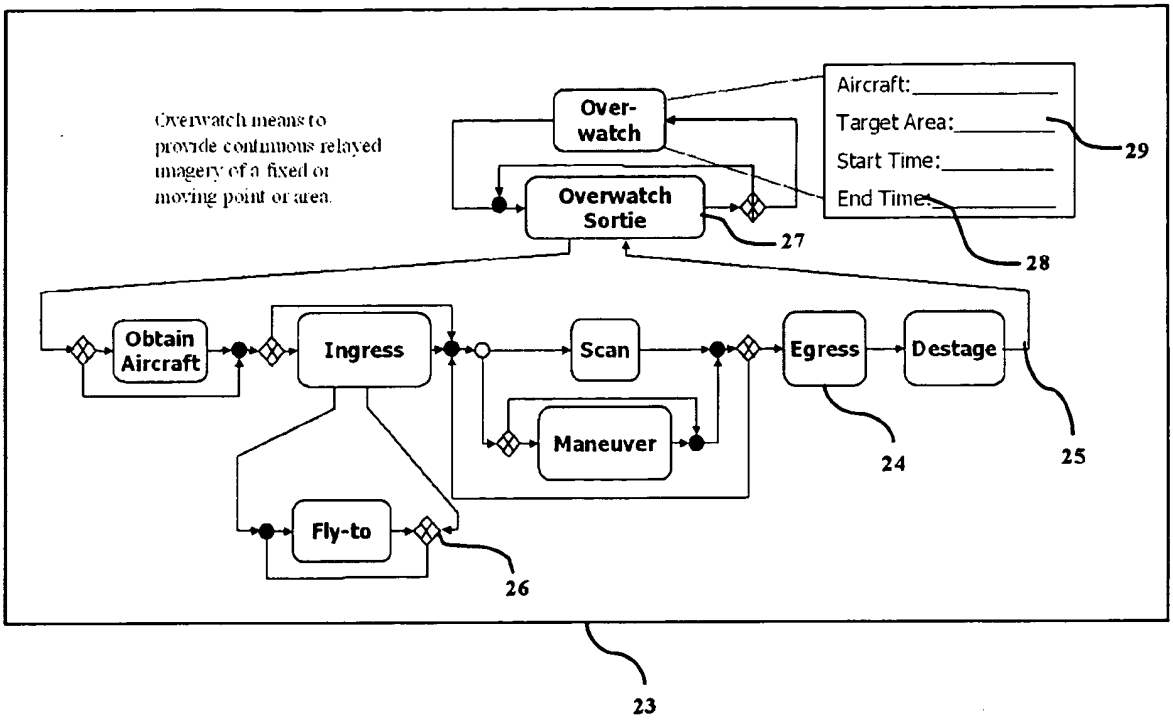

Overwatch means to provide continuous relayed imagery of a fixed or moving point or area.
Over-watch
Overwatch Sortie
Aircraft:
Target Area:
Start Time:
End Time:
29
27
28
Obtain Aircraft
Ingress
Scan
Egress
Destage
Maneuver
Fly-to
24
25
26
23

Fig. 3

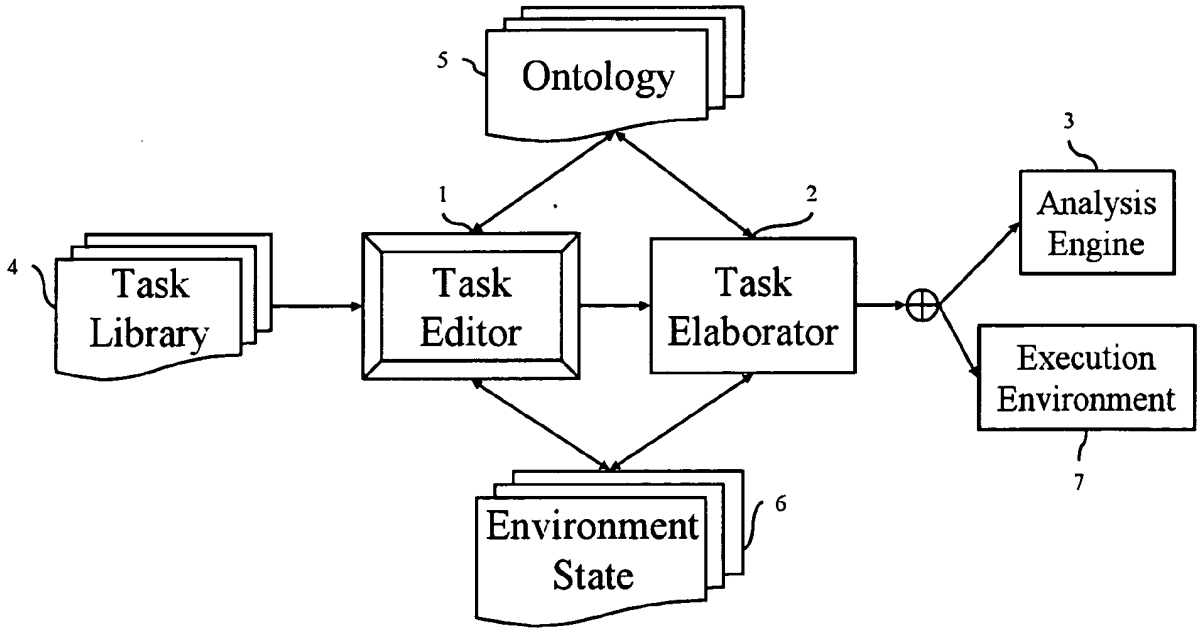

5
Ontology
1
2
3
Analysis Engine
4
Task Library
Task Editor
Task Elaborator
Execution Environment
7
Environment State
6

Fig. 4

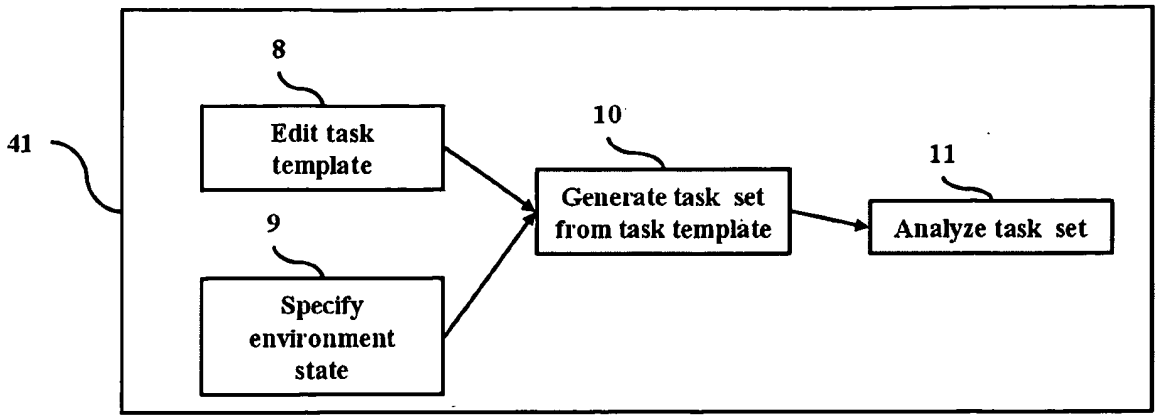


Fig. 5

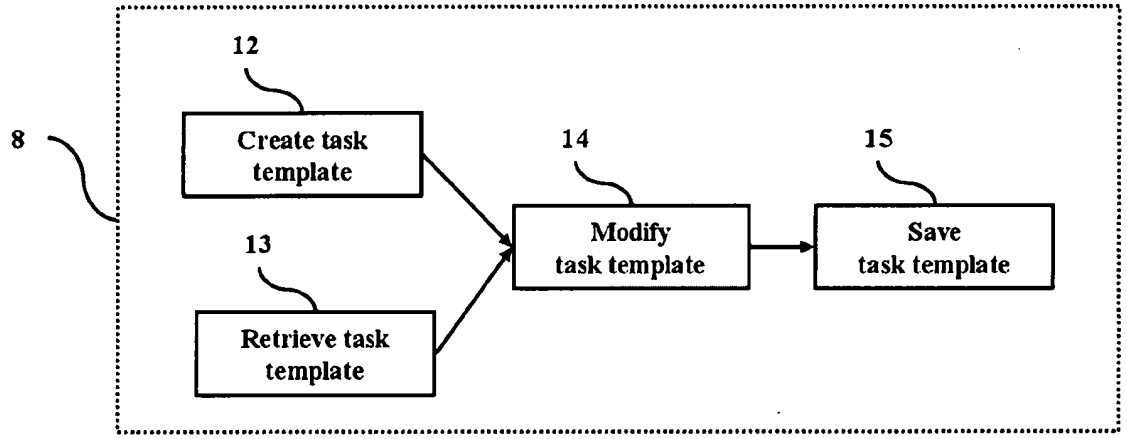


Fig. 6

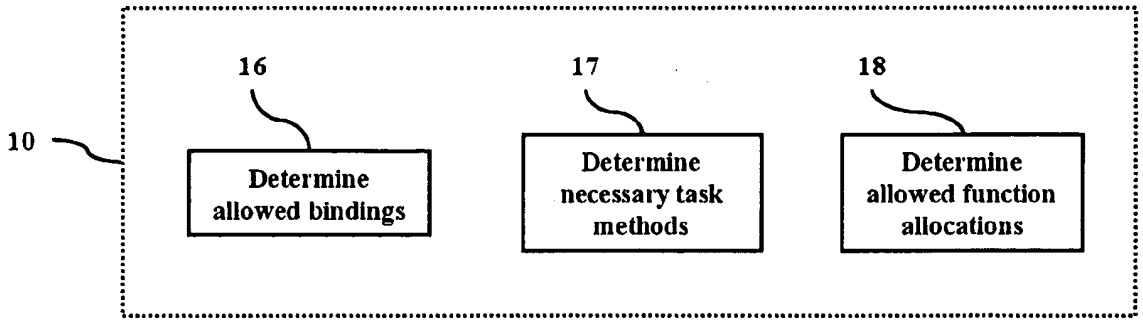


Fig. 7

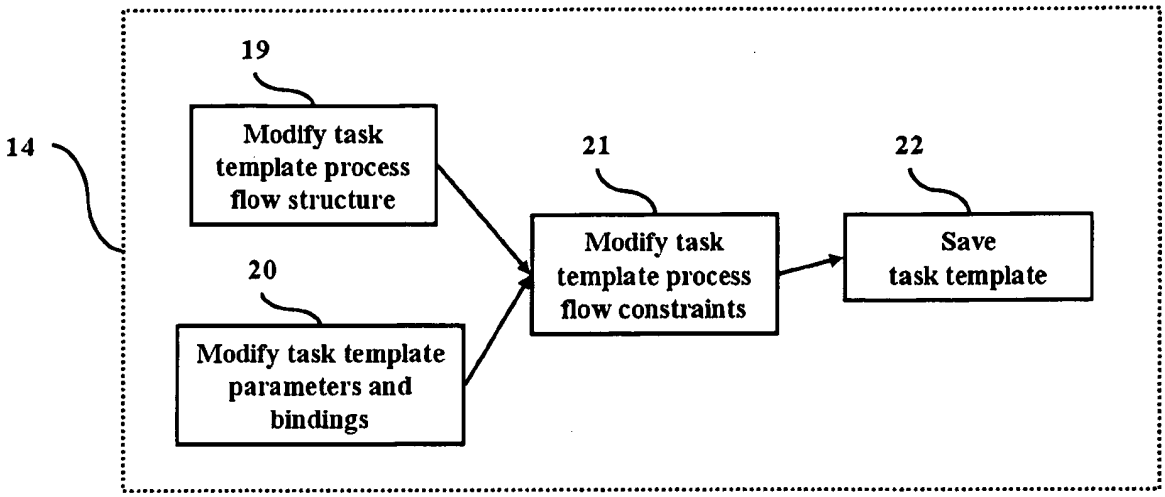


Fig. 8

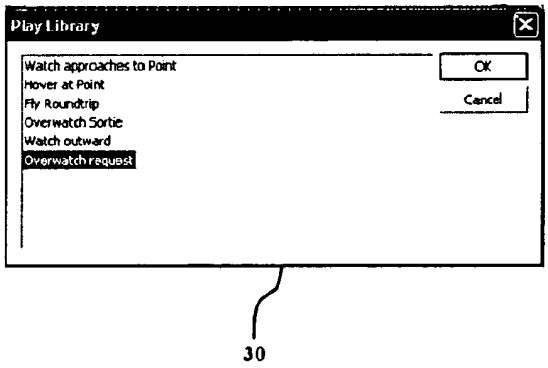


Fig. 9(a)

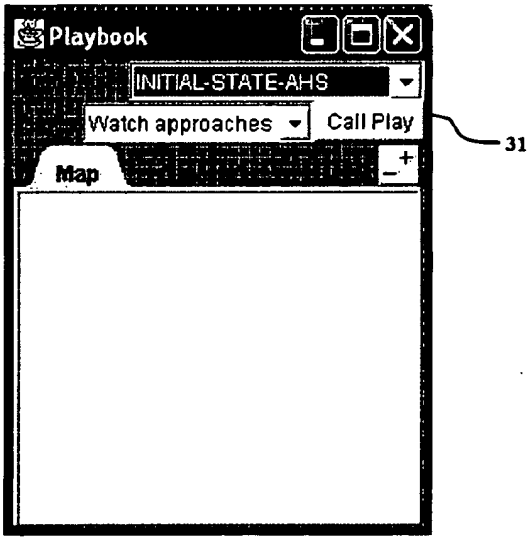


Fig. 9(b)

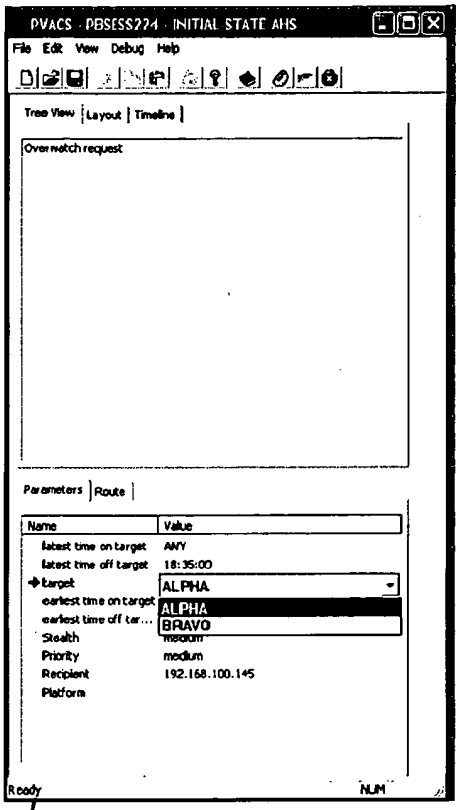


Fig. 10(a)

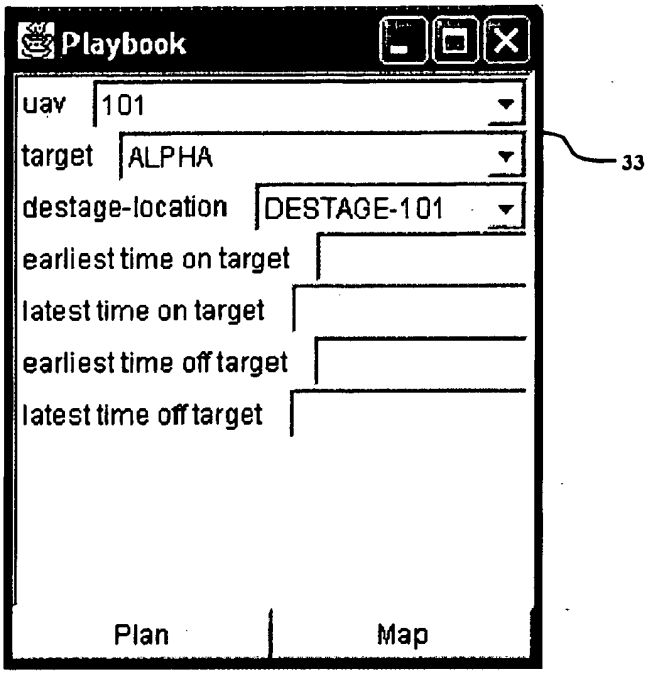


Fig. 10(b)

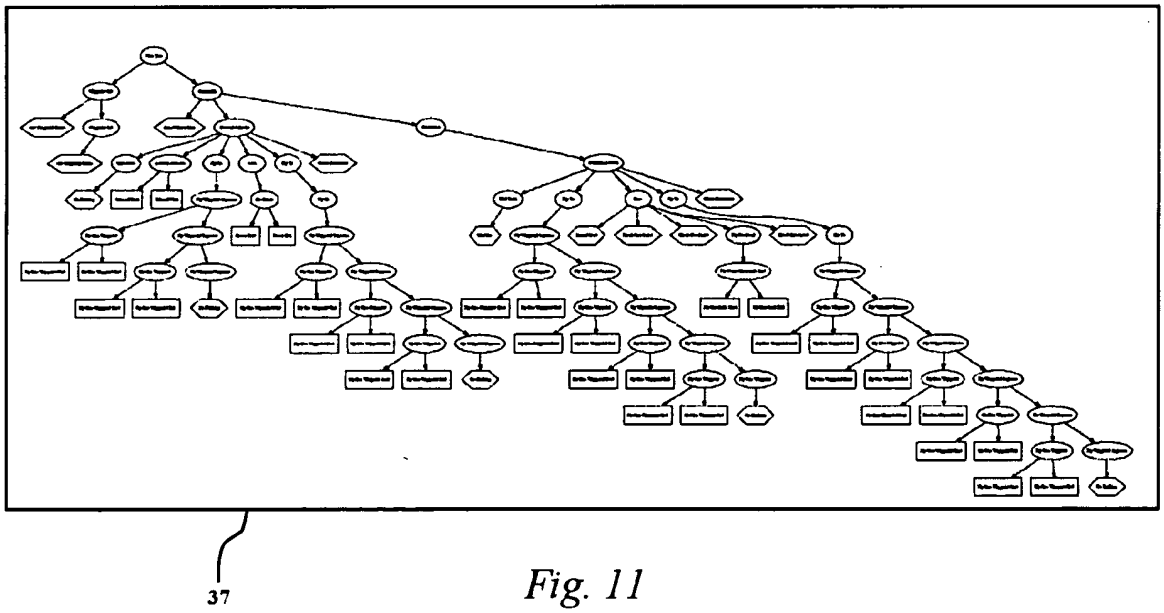


Fig. 11

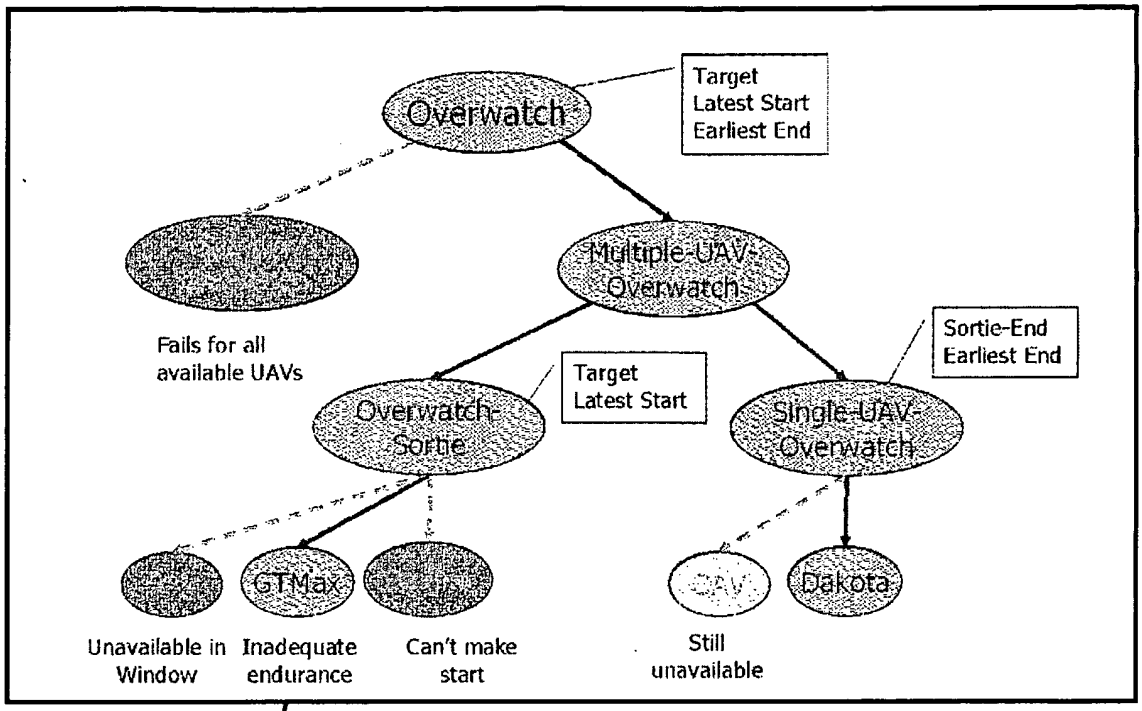
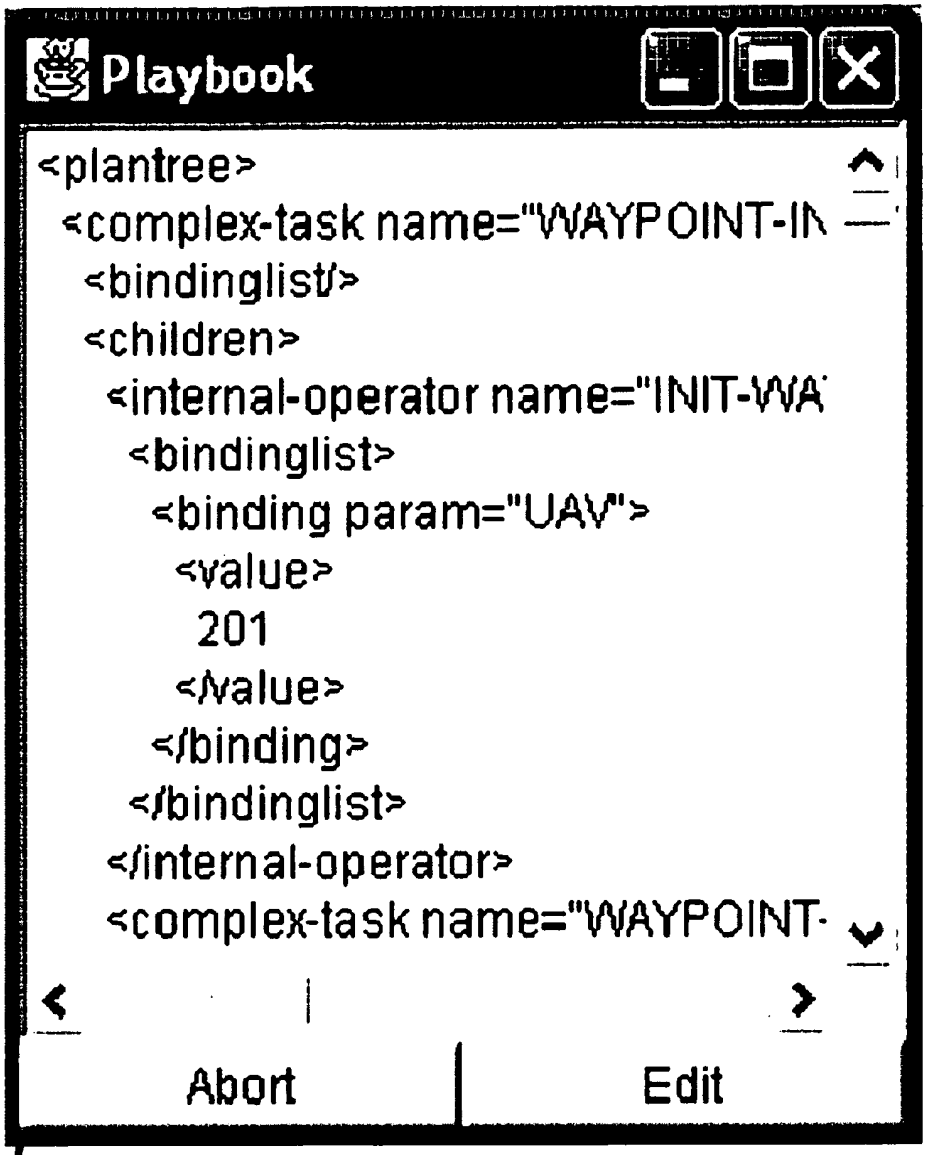

Overwatch
Target
Latest Start
Earliest End
Fails for all
available UAVs
Multiple-UAV-
Overwatch
Sortie-End
Earliest End
Overwatch-
Sortie
Target
Latest Start
Single-UAV-
Overwatch
GTMax
Dakota
Unavailable in
Window
Inadequate
endurance
Can't make
start
Still
unavailable
35

Fig. 12


Playbook
<plantree>
<complex-task name="WAYPOINT-IN
<bindinglist/>
<children>
<internal-operator name="INIT-WA
<bindinglist>
<binding param="UAV">
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201
</value>
</binding>
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</internal-operator>
<complex-task name="WAYPOINT-
Abort
Edit
36

Fig. 13

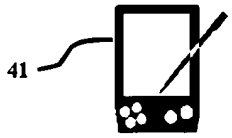

Fig. 14(a)

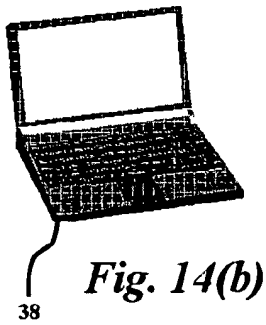

Fig. 14(b)

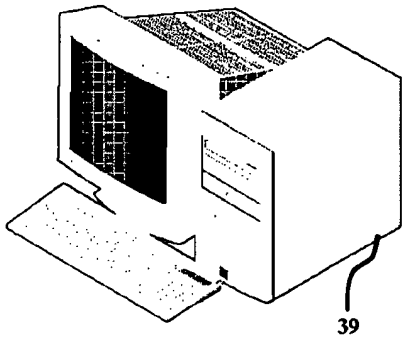

Fig. 14(c)

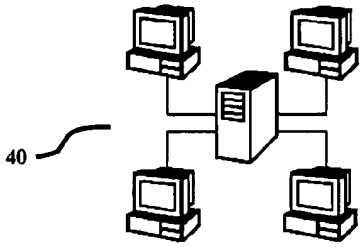

Fig. 14(d)